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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,983	01/25/2002	Shimon Moshavi	884.768US1	3481

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EXAMINER	
TRAN, KHAI	

ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/056,983	MOSHAVI ET AL.	
	Examiner	Art Unit	
	KHAI TRAN	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48 and 55-70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,15-25,29-48 and 55-70* is/are rejected.

7)☒ Claim(s) *11-14 and 26-28* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 1/25/02 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/4/03,7/15/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group I including claims 1-48, 55-70 in the reply filed on 7/15/2005 is acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-8, 15, 18-25, 29-40, 41-48, 55-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff et al (U.S. 2004/0042389 A1) in view of Ben-Eli (U.S. 2003/0134652 A1).

Regarding claims 1,18, Schiff et al disclose a receiver system as shown in Figure 2, comprising: a searcher (218) to identify pilot signals within a received signal, said pilot signals corresponding to a plurality of remote base stations; and a pilot tracking unit to continuously track pilot signals identified by said searcher, said pilot tracking unit to track at least one pilot signal associated with an affiliated base station and, when identified by said searcher and selected for tracking, at least one pilot signal associated with a non-affiliated base station (page 3, [0044] to [0045]). Schiff et al fail to disclose the pilot signal associated with an affiliated base station and, when identified by the searcher and selected for tracking, at least one pilot signal associated with a non-affiliated base station.

Ben-Eli et al et al disclose a method and apparatus for searching for a base station using an adaptable search window as shown in Figure 1, comprising: a search receiver 18 for searching base stations within range of the mobile communications 10, and receivers 14 and 16 include rake receiver functionality to process signals from corresponding base stations (i.e., the receiver 14 may be configured to process signals received from an affiliated base station and a receiver 16 may be configured to process signals from a candidate base station, see page 1 [0008; [0010, and [0011]]). It would have obvious to one having ordinary skill in the art at the time the invention was made to track a number of different base station "set" being defined including: an active set, a candidate set, a neighbor set, and a remaining set, these set used to track base stations which associate with a mobile receiver as taught by Ben-Eli into the teachings of Schiff

et al. The motivation would reduce interference between each pilot signal transmitted from the base stations.

Regarding claims 2, 3, Ben-Eli et al disclose the pilot tracking unit that performs continuous time tracking and continuous channel tracking for the at least one pilot signal associated with the affiliated base station and, when identified by the searcher and selected for tracking, for the at least one pilot signal associated with the non-affiliated base station; the pilot tracking unit performs continuous time tracking, continuous channel tracking, and continuous frequency tracking for the at least one pilot signal associated with the affiliated base station and, when identified by the searcher and selected for tracking, for the at least one pilot signal associated with the non-affiliated base station (page 3 [0019]).

Regarding claim 4, Ben-Eli et al also disclose the pilot tracking unit that continuously tracks a majority of the pilot signals identified by the searcher (page 1, [0008]).

Regarding claims 5-7, Schiff discloses the controller (220) for determining which pilot signals identified by the searcher being continuously tracked by the pilot tracking unit based on a predetermined selection criterion (page 3, [0039]).

Regarding claim 8, Schiff discloses a receiver (digital data receiver 216A ... 216N) for demodulating data within the received signal that is associated with a predetermined user.

Regarding claim 15, Ben-Eli discloses the pilot tracking unit for generating signal strength related information and diversity information for one or more remote base stations for use in making a soft handoff decision (see page 1, [0008]).

Regarding claim 18, Schiff discloses the pilot tracking unit including a plurality of independent pilot trackers to each continuous track a single assigned pilot signal (Fig. 2, a digital receiver 216A to 216 N).

Claim 19 is similar to claims 1, 2. Therefore, claim 19 is rejected under a similar rationale.

Claims 20, 22 are similar to claim 6. Therefore, claims 20, 22 are rejected under a similar rationale.

Claim 21 is similar to claim 7. Therefore, claim 21 is rejected under a similar rationale.

Claim 23 is similar to claim 5. Therefore, claim 23 is rejected under a similar rationale.

Claim 24 is similar to claim 8. Therefore, claim 24 is rejected under a similar rationale.

Claim 25 is similar to claim 8. Therefore, claim 25 is rejected under a similar rationale.

Claim 29 is similar to claim 10. Therefore, claim 29 is rejected under a similar rationale.

Claim 30 is similar to claims 1, 5, 6, 7, 8, 10. Therefore, claim 30 is rejected under a similar rationale.

Claim 31 is similar to claim 2. Therefore, claim 31 is rejected under a similar rationale.

Claim 32 is similar to claim 15. Therefore, claim 32 is rejected under a similar rationale.

Claim 33 is similar to claim 4. Therefore, claim 33 is rejected under a similar rationale.

Claims 34-35 and 39 are similar to claims 1, 30. Therefore, claims 34 and 39 are rejected under a similar rationale.

Claims 36-38, 40 are similar to claims 6, 7, 22, 30. Therefore, claims 36-40 are rejected under a similar rationale.

Claim 41 is similar to claim 30. Therefore, claim 30 is rejected under a similar rationale.

Claim 42 is similar to claim 30. Therefore, claim 42 is rejected under a similar rationale.

Claims 43-45 are similar to claims 43-45. Therefore, claims 43-45 are rejected under a similar rationale.

Claim 46 is similar to claim 31. Therefore, claim 46 is rejected under a similar rationale.

Claim 47 is similar to claim 31. Therefore, claim 47 is rejected under a similar rationale.

Claim 48 is similar to claim 24. Therefore, claim 48 is rejected under a similar rationale.

Claim 55 is similar to claim 1. Ben-Eli further discloses the selected base station pilot signals including a pilot signal that is not presently assigned to rake finger within the communication device (page 1, [0008]).

Regarding claims 56-61, Schiff et al disclose the base station related information including diversity information such as multi-path and antenna diversity (see page 3, [0040].

Claim Rejections - 35 USC § 103

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff in view of Ben-Eli et al as applied to claims 1-8 above, and further in view of Lundlby (U.S. 2004/0184513 A1).

Schiff and Ben-Eli fail to explicitly disclose the receiver including a rake receiver having a plurality of rake fingers.

Lundby et al disclose a demodulator having a rake receiver comprising a plurality of rake fingers 112B ... 112C (see Fig. 4, page 5, [0066]). It would have been obvious to one having ordinary skill in the art at the time invention was made to utilize the rake receiver having the plurality of the fingers as taught by Lundby et al into the teachings of Schiff and Ben-Eli et al's system for correlating a received signal with a spread code. The motivation would enable the receiver to identify which base station is transmitting pilot signal.

Claim Rejections - 35 USC § 103

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff in view of Ben-Eli et al as applied to claim 1 above, and further in view of Smolyar et al (U.S. 2003/0114179 A1).

Regarding claim 9, Schiff and Ben-Eli et al fail to disclose a site selection diversity transmit SSDT unit to dynamically select a single base station to transmit user data to the receiver system based on tracking information gathered by the pilot unit.

Smolyar et al disclose a sue of the site selection diversity transmission (SSDT) mode of operation for choosing which one of number of different base stations will transmit to it a particular time (page. 3, [0023]. It would have been obvious to one having ordinary skill in the art at the time invention was made to select a base station to transmit data to the communication device by using the site selection diversity transmission (SSDT) mode of operation as taught by Smolyar et al into the teachings of Schiff and Ben0Eli et al in order to make a quick adjustment of the SIR target value that it can be made based on the channel conditions of previous base station.

Claim Rejections - 35 USC § 103

7. Claims 62-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff in view of Ben-Eli et al as applied to claim 1 above, and further in view of Smolyar et al (U.S. 2003/0114179 A1).

Claims 62, 66 are similar to claim 1, but Schiff and Ben-Eli et al fail to disclose selecting a base station to transmit data to the communication device in a site selection diversity transmission (SSDT) mode of operation based on the base station information.

Smolyar et al disclose a sue of the site selection diversity transmission (SSDT) mode of operation for choosing which one of number of different base stations will transmit to it a particular time (page. 3, [0023]. It would have been obvious to one having ordinary skill in the art at the time invention was made to select a base station to transmit data to the communication device by using the site selection diversity transmission (SSDT) mode of operation as taught by Smolyar et al into the teachings of Schiff and Ben0Eli et al in order to make a quick adjustment of the SIR target value that it can be made based on the channel conditions of previous base station.

Claims 63-65 are similar to claims 2-4. Therefore, claims 63-65 are rejected under a similar rationale.

Claim Rejections - 35 USC § 103

8. Claims 16, 17, 67, 68, 69, 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff in view of Ben-Eli et al as applied to claim 1 above, and further in view Kong et al (U.S. Pat. 6,473,619).

Claims 16, 17, 67, 69, 70, Schiff and Ben-Eli et al discloses all limitations as illustrated in claim 1, except estimating a position of the communication device based on the base station information.

Kong et al disclose a mobile station device and method using arrival time differences or time difference of arrivals (TDOAs) calculated with signals received from

a plurality of neighboring base stations to the mobile station (col. 1, lines 47-67, and col. 13, lines 13-32; col. 5, line 66 to col. 6, line 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to estimate a position of the communication device by using time difference of arrival (TDOA) techniques as taught Kong et al into the teachings of Schiff and Ben-Eli et al in order to quickly location the position of the mobile station.

Claim 68 is similar to claim 23. Therefore, claim 68 is rejected under a similar rationale.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saito et al (U.S. 2001/0014116 A1) disclose path search method.

Amerga et al (U.S. 2003/0013457 A1) disclose a method for assigning tracking elements.

Seki et al (U.S. 2004/0248581 A1) disclose a mobile communication system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI TRAN whose telephone number is (571) 272-3019. The examiner can normally be reached on 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JAY PATEL can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KHAI TRAN
Primary Examiner
Art Unit 2637

Kt
August 19, 2005